

## STATEMENT OF BASIS

as required by LAC 33:IX.3109, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0039993; AI 40921; PER20060001** to discharge to waters of the **State of Louisiana** as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality  
Office of Environmental Services  
P. O. Box 4313  
Baton Rouge, Louisiana 70821-4313

- I.     **THE APPLICANT IS:**   Caldwell Housing Corporation  
                                    Green Acres Water & Sewer District 1  
                                    P.O. Box 546  
                                    DeRidder, LA 70634
  
- II.    **PREPARED BY:**       Ronda Burtch
  
- DATE PREPARED:**   November 20, 2006
  
- III.   **PERMIT ACTION:**    reissue LPDES permit LA0039993, AI 40921; PER20060001  
  
                                     LPDES application received: May 15, 2006  
  
                                     LPDES permit issued: November 1, 2001  
                                     LPDES permit expired: October 31, 2006

### IV.    **FACILITY INFORMATION:**

- A.     The application is for the discharge of treated sanitary wastewater from an existing privately owned treatment works serving the Green Acres Subdivision.
  
- B.     The permit application does not indicate the receipt of industrial wastewater.
  
- C.     The facility is located 200 ft. from the corner of Melon Street and Wagon Street in DeRidder, Vernon Parish.
  
- D.     The treatment facility consists of a two-cell oxidation pond with aeration, grid system, and duckweed in the second pond. Filtration is through a rapid sand and gravel filter unit. A regenerative blower adds oxygen before the effluent is discharged. Disinfection is by chlorination.
  
- E.     **Outfall 001**

Discharge Location:       Latitude 30° 53' 05" North  
                                    Longitude 93° 17' 48" West

Description:               treated sanitary wastewater

Expected Flow:            547 Homes x 400 gallons/day/home = 0.2188 MGD  
                                    96 Two-bedroom apartments x 300 gallons/day/apt. = 0.0288 MGD  
                                    4 Three-bedroom apartments x 400 gallons/day/apt. = 0.0016 MGD

Total Expected Flow:     0.2492 MGD

Calculations for gallons per day were based upon figures obtained from Chapter 15 of the State of Louisiana Sanitary Code, Department of Health and Hospitals, Office of Public Health.

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Please note that if the facility grows to a discharge beyond the design capacity of the facility, additional sewage treatment may be required with prior approval of the facility's plans by the Louisiana Department of Health and Hospitals and notification must be submitted to the LDEQ. Also, if the expected flow reaches or exceeds the design capacity of the facility, a permit modification may be required.

Type of Flow Measurement which the facility is currently using:

Totalizing Meter

#### V. RECEIVING WATERS:

The discharge is into an unnamed ditch, thence into Flat Creek, thence into Bundicks Creek in segment 030506 of the Calcasieu River Basin. This segment is not listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 030506 of the Calcasieu River Basin are as indicated in the table below<sup>1/</sup>:

Overall Degree of Support for Segment 030506	Degree of Support of Each Use						
	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
Partial	Full	Full	Not Supported	N/A	N/A	N/A	N/A

<sup>1/</sup>The designated uses and degree of support for Segment 030506 of the Calcasieu River Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2004 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

#### VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 030506 of the Calcasieu River Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated September 29, 2006 from Watson (FWS) to Brown (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

#### VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

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**VIII. PUBLIC NOTICE:**

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit modification and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Ms. Ronda Burtch  
Permits Division  
Department of Environmental Quality  
Office of Environmental Services  
P. O. Box 4313  
Baton Rouge, Louisiana 70821-4313

**IX. PROPOSED PERMIT LIMITS:**

Subsegment 030506, Bundicks Creek, is not listed on LDEQ's Final 2004 303(d) List as impaired. However, subsegment 030506 was previously listed as impaired for lead, for which the below TMDL has been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving waterbodies based upon additional TMDLs and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDLs for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

The following TMDL has been established for subsegment 030506:

*Bundicks Creek TMDL for Dissolved Lead, Subsegment 030506*

Per the TMDL, LDEQ concludes that natural background loading is the dominant source of lead in Bundicks Creek and Bundicks Lake. Since the lead criterion is hardness-dependent and the waterbodies had very low hardness, the standard is very low and is easily exceeded at the low detection capabilities of modern laboratory instruments. This facility was not modeled in the TMDL; and, therefore no limitations for lead will be required of this facility.

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### Final Effluent Limits:

#### OUTFALL 001

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
BOD <sub>5</sub>	21	10 mg/l	15 mg/l	Limits are set in accordance with the Statewide Sanitary Effluent Limitations Policy (SSELP) for dischargers of this treatment type and size.
TSS	31	15 mg/l	23 mg/l	TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.

### Other Effluent Limitations:

#### 1) Fecal Coliform

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

#### 2) pH

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time. (Limits as established through BPJ considering BCT for similar waste streams in accordance with LAC 33:IX.5905.C.).

#### 3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

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**X. PREVIOUS PERMITS:**

**LPDES Permit No. LA0039993:** Issued: November 1, 2001  
Expired: October 31, 2006

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Daily Avg.</u>	<u>Daily Max.</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Report	Report	Continuous	Recorder
BOD <sub>5</sub>	10 mg/l	15 mg/l	2/month	Grab
TSS	15 mg/l	23 mg/l	2/month	Grab
Fecal Coliform Colonies	200	400	2/month	Grab

**XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:**

**A) Inspections**

A review of the files indicates that there are no recent inspections on file as of November 19, 2006.

**B) Compliance and/or Administrative Orders**

A review of the files indicates that no enforcement actions have been administered against this facility.

**C) DMR Review**

A review of the discharge monitoring reports for the period beginning October 1, 2004 through September 30, 2006 has revealed no effluent violations.

**XII. ADDITIONAL INFORMATION:**

The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDL's. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as requested by the permittee and/or as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the expected flow of 0.2492 MGD.

Effluent loadings are calculated using the following example:

$$\text{BOD: } 8.34 \text{ lb/gal} \times 0.2492 \text{ MGD} \times 10 \text{ mg/l} = 21 \text{ lb/day}$$

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At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** as shown in the permit are standard for facilities of flows between 0.10 and 0.50MGD.

<u>Effluent Characteristics</u>	<u>Monitoring Requirements</u>	
	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Continuous	Recorder
BOD <sub>5</sub>	2/month	Grab
Total Suspended Solids	2/month	Grab
Fecal Coliform Bacteria	2/month	Grab
pH	2/month	Grab

### **XIII TENTATIVE DETERMINATION:**

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

### **XIV REFERENCES:**

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Caldwell Housing Corporation, Green Acres Water & Sewer District 1, May 15, 2006.